

Applicant: Friedrich BOECKING  
Docket No. R.305745  
Preliminary Amdt.

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1 & 2. (Canceled)

3. (New) In a fuel injection system having an injection valve, a line supplying fuel at high pressure to the injection valve in operation, a control valve which controls the pressure in a control chamber of the injection valve that communicates with the aforementioned line, the control valve including movable valve part actuatable by an actuator via a hydraulic coupler that has two pistons, cooperating with a coupler volume of the coupler, the seat of the movable valve part has an inside cross-sectional area  $f_3$ , with means for filling the coupler volume via guide gaps of the pistons with fuel that is under pressure,

the improvement wherein the pistons are located parallel to one another with one inside the other; the system also comprising a booster chamber located on the ends of the pistons toward the actuator a filling chamber in the interior of the outer piston provided, the filling chamber communicating with the aforementioned line; and rod means mechanically coupling a cross-sectional area  $f_4$  of the one piston to the actuator the rod having a cross-sectional area  $f_5$ ; the other piston, having a piston area  $f_2$  and actuating the control valve via a rod having a cross-sectional area that is smaller than  $f_2$ ; the direction of the closing motion of the movable valve part matching the direction of fuel flowing out of the control chamber, so

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that the control valve is at least partially force-balanced because of the pressure acting on the further piston in the booster chamber.

4. (New) The fuel injection system according to claim 3, further comprising a further filling chamber, which communicates with the aforementioned line and is in communication with the coupler via a guide gap of the rod at least in one region of the rod, connecting the actuator to the hydraulic coupler, at a distance from the chamber of the coupler that is closest to the actuator.